SIEMENS

SIREMOBIL

SP

System Manual

Installation Instructions

Installation of TFT displays

© Siemens AG 2004
The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

English
Print No.: SPR2-230.812.02.02.02
Doc. Gen. Date: 02.06
Replaces: SPR2-230.812.02.01.02

Chapter	Page	Revision
all	all	02

Document revision level

The document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

Please contact your local Siemens office to order current revision levels.

Disclaimer

The installation and service of equipment described herein is to be performed by qualified personnel who are employed by Siemens or one of its affiliates or who are otherwise authorized by Siemens or one of its affiliates to provide such services.

Assemblers and other persons who are not employed by or otherwise directly affiliated with or authorized by Siemens or one of its affiliates are directed to contact one of the local offices of Siemens or one of its affiliates before attempting installation or service procedures.

Page

1 General 1 - 1

Safety instructions . . . 1 - 1
Notes and symbols . . . 1 - 1
Validity of these instructions . . . 1 - 2
Parts required . . . 1 - 2
Auxiliary devices required . . . 1 - 2

2 Installation of TFT displays 2 - 1

Dismantling the existing monitors . . . 2 - 1
Installation of the video and power line cables in the monitor trolley . . . 2 - 3
Installation of the support arm on the monitor trolley . . . 2 - 3
BARCO display . . . 2 - 3
Adjusting the support arm to the size of the TFT display . . . 2 - 4
Installation . . . 2 - 5
Protective ground wiring of the support arm . . . 2 - 6
Wiring the radiation indicators of the support arm . . . 2 - 6
Wiring of the displays . . . 2 - 7
BARCO displays . . . 2 - 7
Running the cables . . . 2 - 7

3 Settings 3 - 1

TFT display BARCO MVG 1318, part number 80 79 530 . . . 3 - 1
Concluding work . . . 3 - 1

4 Changes to previous version 4 - 1

Contents

Page

Safety instructions

⚠CAUTION	**When performing the work steps and tests described herein, observe the product-specific safety information contained in the documents, as well as the general safety information TD00-000.860.01....**

Notes and symbols

Emphasized texts in technical documentation have the following meaning:

⚠DANGER	**DANGER indicates an immediate danger that if disregarded will cause death or serious physical injury.**
⚠WARNING	**WARNING indicates a possible danger that if disregarded can cause death or serious physical injury.**
⚠CAUTION	**CAUTION used with the safety alert icon indicates a possible danger that if disregarded will or can lead to minor or moderate physical injury and/or damage to property.**
NOTICE	**NOTICE used without the safety alert icon indicates a possible danger that if disregarded may or will lead to an undesirable result or state other than death, physical injury or property damage.**

Validity of these instructions

These instructions are valid for upgrading a TFT support arm and 2 TFT displays on existing SIREMOBIL Compact, SIREMOBIL Compact L,
SIREMOBIL Iso-C, ARCOSKOP and POWERMOBIL systems with available tube monitors, installed on the monitor trolley 37 77 880.

Parts required

Upgrade Kit for TFT Displays	07141125

Auxiliary devices required

Tool case

Required Documents

NOTE **The corresponding replacement instructions are necessary for checking and if necessary adjusting the delivered TFT displays.**

- Replacement instructions of the delivered TFT displays.
  See CS Intranet, CB-Doc of the corresponding system, "Service"
- System manual for the system
- Logbook for the system
- IQ quick test of the system

Dismantling the existing monitors

- Remove both monitors as follows.

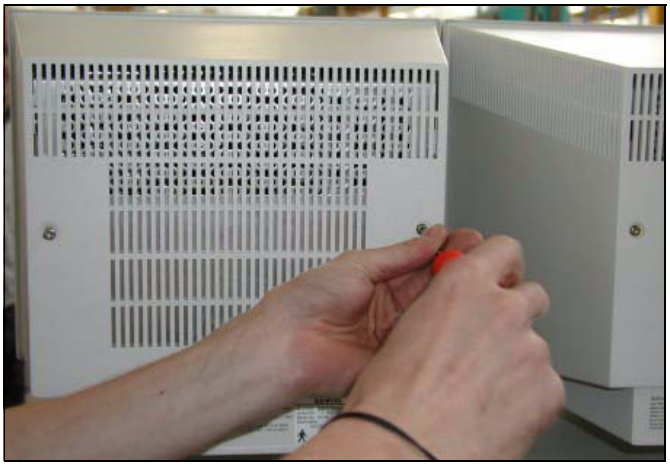

Fig. 1 Monitor cover

Fig. 2 Shielding plate

- Remove transport monitor covers (Fig. 1).
- Remove the shielding plates (Fig. 2).

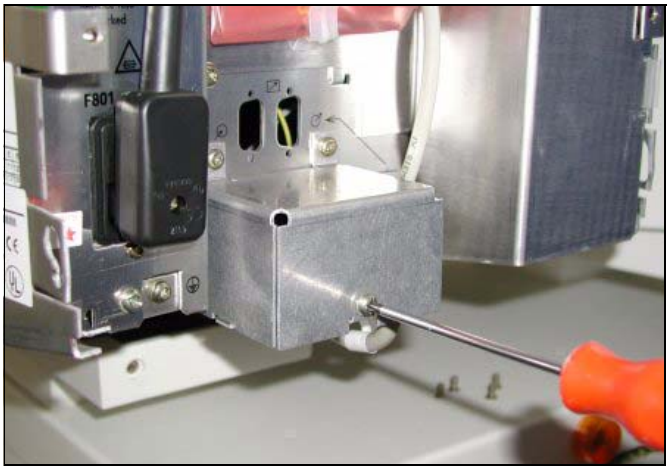

Fig. 3 Connection housing

Fig. 4 Monitor attachment

- Remove the connection housing (only for SIMOMED N monitor 11 02 628, Fig. 3).
- Unplug all cables from the monitor to be replaced.
- In each case loosen the 2 screws at the monitor mounting (Fig. 4).
- Lift down both monitors.
- Reattach all previously removed parts to the monitor.

Fig. 5 Monitor attachments

Fig. 6 Monitor trolley cable bushes

- Unscrew the two bases of the monitors from the monitor trolley and remove them completely (Fig. 5).
- Remove the two video cables.
- Completely remove and disconnect the two power cables.
- 4 prepunched holes are visible around the central cable bush (↗/ Fig. 5).
  4 metal bolts are inserted in these holes and they are thus closed.
  Drive out the 4 metal bolts downwards with a drift (or another round object). Remove the 4 metal bolts from the monitor trolley.
- Lift off the central blind cover and close one of the cable bushes on the side with it (Fig. 6).
- Close off the 2nd cable bush on the side and the 8 fastening holes around the cable bushes on the sides with the enclosed blind covers.

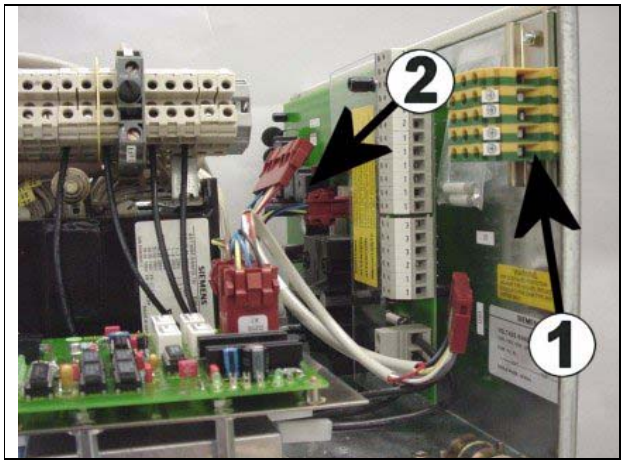

Fig. 7 ON/OFF assembly

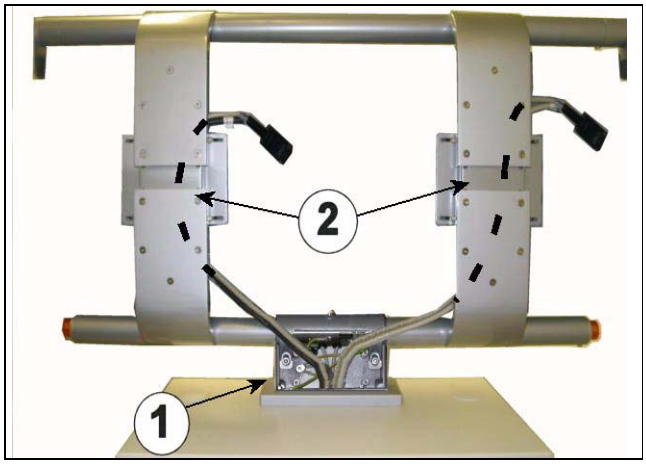

Fig. 8 Installation of the support arm

Installation of the video and power line cables in the monitor trolley

- TFT display BARCO MVG 1318: Run the video cables (BNC plug - BNC plug) contained in the scope of supply of the set attachment through the middle cable bush of the monitor trolley, and laterally through the lateral rail to the MEMOSKOP. Plug in and lock the cables at the OUT1 socket (left display) and OUT2 socket (right display).

Installation of the support arm on the monitor trolley

- Open the rear cover of the support arm base on the TFT display.

BARCO display

- Run the free cable ends of the new power cables (included in the attachment kit of the TFT monitor) downwards through the holder of the support arm (2/Fig. 8), through the center cable bush of the monitor trolley and through the lateral rail to the ON/OFF assembly (Fig. 7) and connect them to the terminal blocks:

NOTE	**The new power line cables have a length of approx. 2.6 m and are equipped with a straight female connector on one cable end.**

  - Connect the brown cable ends to terminal block X2.1.
  - Connect the blue cable ends to terminal block X2.2.
  - Connect the protective ground (Ge/Gn) to the protective conductor bars (1/Fig. 7).
- Thread the video cables upwards, through the rectangular cable bush (1/Fig. 8) of the support arm base and further through the holders of the support arm (2/Fig. 8).
- Place the support arm base above the center cable bush (Fig. 8).
- Starting with the logbook compartment, tighten the screws of the support arm base on the monitor trolley. Use 4 Allen screws M6 x 20, 4 lock washers and 4 plate washers for this (Fig. 8).

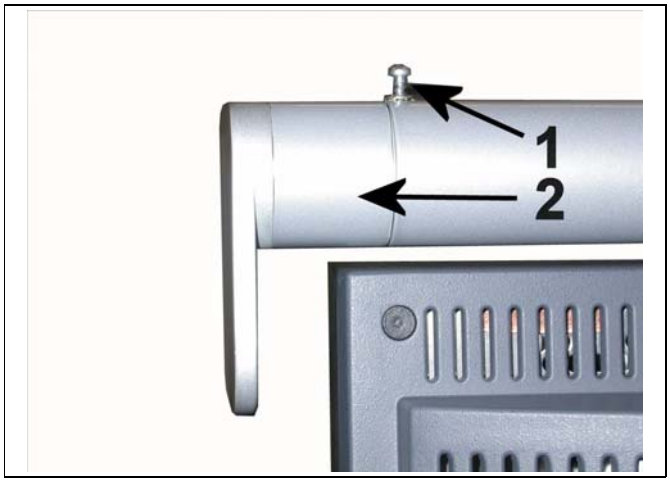

Fig. 9 Collision protection

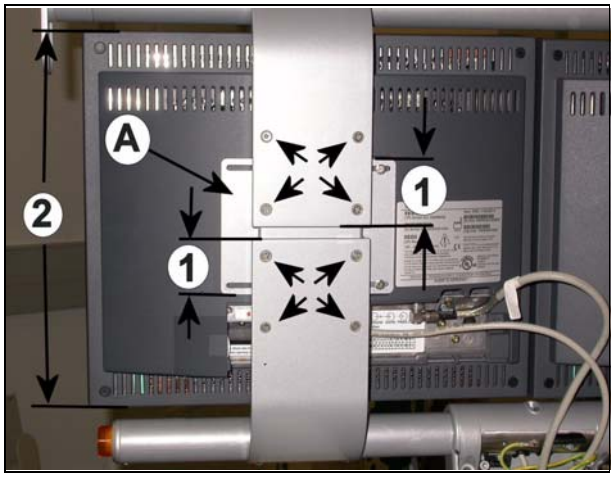

Fig. 10 Adjustment of the support arm

Installation of the TFT display on the support arm

NOTE

You can adjust the width of the support arm and the distance between the top and bottom tube to adapt the support arm to the display in use. In addition, you can modify the vertical centering of the holding plate (A/Fig. 10).
You can modify the width of the support arm using spacer rings (2/Fig. 9).
The distance between the tubes and the vertical centering of the holding plate can be modified after loosening the countersunk screws on both vertical display supports (8 on each support). Loosen the 16 countersunk screws only slightly; do not remove them completely!

- Dismount temporarily the collision protection (see Fig. 9). To do so, loosen the screws (1/ Fig. 9) on both top tubes and pull out the collision protection.

Adjusting the support arm to the size of the TFT display

- After loosening the 2 x 8 countersunk screws on the support arm (‰/Fig. 10), you can adjust the distance between both tubes as well as the vertical position of the holding plate (A/Fig. 10).
- To permit easier adjustment, it is recommended to calculate and pre-set the distances (1/Fig. 10) before the TFT displays are attached.

Calculation of the distances (1/Fig. 10):

$$\text{Distance (1/Fig. 10)} = 17\ \text{cm} - \frac{\text{Height TFT display (cm) (2/Fig. 10)}}{2} + 4.8\ \text{cm}$$

- Setting the distances results in a distance of approx. 1 cm between the top and bottom edge of the TFT displays, on the one hand, and the tubes of the support arm, on the other hand.

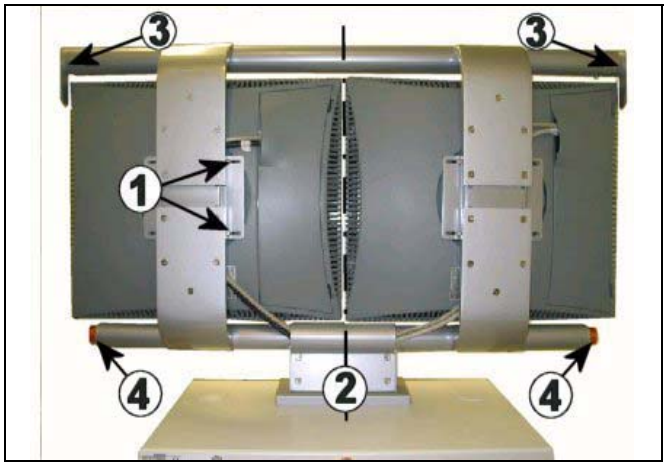

Fig. 11 Installation of the TFT displays

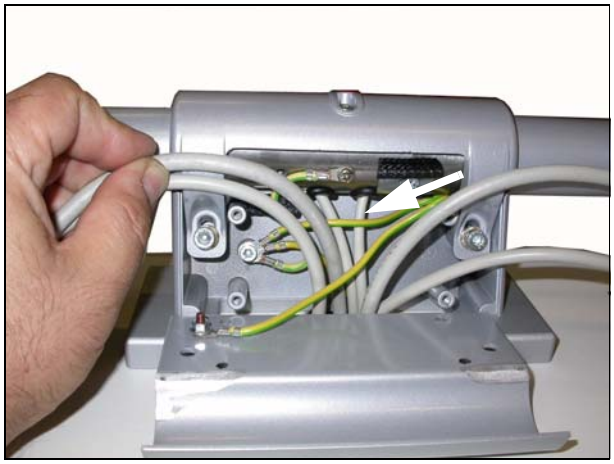

Fig. 12 Routing the cables

Installation

- The collision protection is still removed on the left-hand and right-hand side (3/ Fig. 11).
- Place the first TFT display in front of the holder.

NOTE

The displays have 4 thread holes on the rear panel for attaching the holder.

For some displays, special adapter plates are needed for installing the display on the holder (included in the scope of delivery). These plates are to be inserted between holder and display housing.

- Screw in both fixing screws (1/Fig. 11) only slightly, i.e. do not yet tighten them completely.
- Shift the TFT display out until it is possible to screw in the external screws. Do not yet tighten the screws completely. It must be possible to shift the TFT display horizontally.
- Attach the second TFT display in the same way.
- Place both displays horizontally symmetrical with respect to the center axis (2/Fig. 11).
  - Make sure that there is a vertical clearance of approx. 2 mm between the displays.
- If both displays are properly positioned, tighten the fixing screws firmly.
- Reattach the collision protection on the left-hand and right-hand side (Fig. 9).
- If it is required to adjust the width, insert a spacer ring on both sides, then push the collision protection in the tube and retighten its screws.
- If required, correct the distance between the displays and the top and bottom tube of the support arm.
  - It is recommended to leave a couple of millimeters for ventilation between the displays and the top and bottom tube of the support arm to prevent collisions due to vibrations during moving the monitor trolley.
  - Both tubes of the support arm should run in parallel to each other.

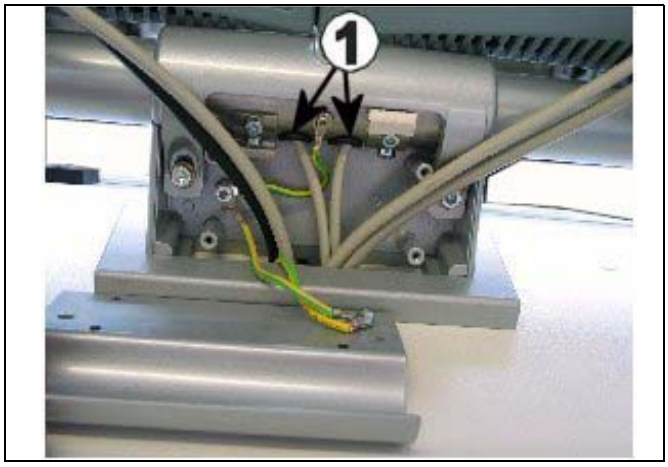

Fig. 13 Cabling of SIEMENS displays

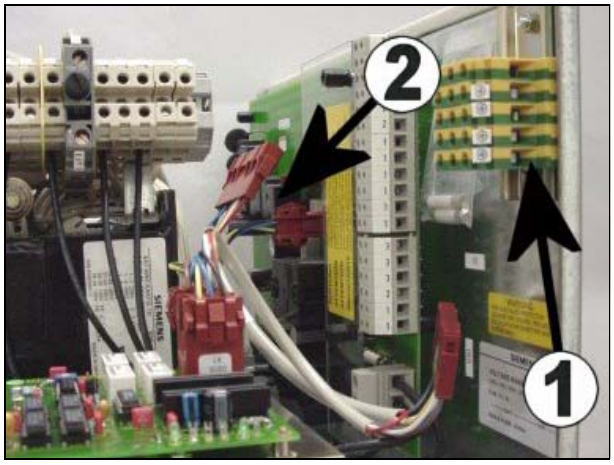

Fig. 14 Routing the cables

Protective ground wiring of the support arm

- On the support arm base of the TFT Display, a short protective ground wire is attached with stripped end. Unscrew the protective ground wire and replace it by the protective ground wire with a length of 2m (included in the attachment kit of the TFT monitor; included in the scope of delivery). Run the free end of the protective ground wire through the support arm base, through the logbook compartment and then through the lateral rail of the monitor trolley to the ON/OFF assembly. Connect the wire end to a free protective conductor bar (1/Fig. 14). Make sure that both protective ground wires make good contact.

Wiring the radiation indicators of the support arm

- Withdraw the two radiation indicators (4/Fig. 11) after loosening the lower mounting screws laterally from the tube.
- One end of the cable of the additional radiation indicator (included in the delivery of the support arm of the TFT display) is equipped with 2 free cable ends. On the other end, a connector D50.X7 is installed. Run both cable ends in the lower tube of the support arm through the two bores (1/Fig. 13) to the radiation indicators.
- Connect both radiation indicators, then re-insert them in the bottom tube and retighten them.
- Route the cable end with the attached connector D50.X7 through the support arm base to the logbook compartment and then through the lateral rail of the monitor trolley to the ON/OFF assembly located below.
- Unplug connector X4 of the ON/OFF assembly. See (2/Fig. 14).
- Wire the Y-cable (included in the attachment kit of the TFT monitors which is part of the delivery), together with the attached plug connectors D50.X4, D50, X4A and D50.X7, as follows:

Y-cable connector D50.X4A	-----	ON/OFF assembly board D50, connector D50.X4
Y-cable, coupling D50.X4	-----	Cable of radiation indicator, connector D50.X4
Y-cables, coupling D50.X7	-----	New support arm, radiation indicator, connector D50.X7

- Attach the cables to the monitor trolley using cable ties.

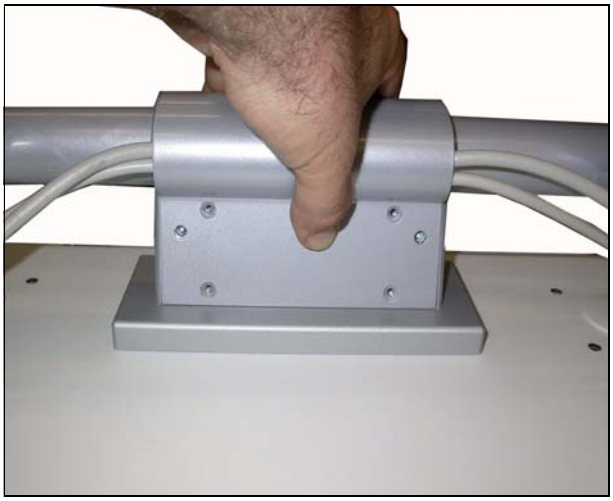

Fig. 15 Cover of the support arm

Wiring of the displays

- Open the rear panel of both TFT displays above the connections.
- Route the power line cables and the video cables to the TFT displays.

BARCO displays

- Connect the video cable to the BNC sockets VIDEO of the displays and lock it.
- Connect the shieldings of the video cables to the ground of the display.
- Plug in the power cables.
- Close both covers again located above the display connections.

Running the cables

- If required, retract the power line cables and video cables into the monitor trolley.
  - Route the cables without sharp bending radius.
  - It is recommended to ensure that the cables are covered by both support arm rails in the area between support arm base and the displays (see Fig. 11).
  - The cables should rest in the cable bushes of the support arm base without excessive pulling force or stress (Fig. 15).
- Reattach the cover of the support arm (Fig. 15).
- When present, switch on the power switches of the TFT displays.

This page is intentionally left blank.

TFT display BARCO MVG 1318, part number 80 79 530

- Make the checks and if necessary settings according to the replacement instructions TD00-000.841.17...
  Refer to the System-dependent settings chapter of the instructions.

Concluding work

- Close all covers again. Make sure that the protective ground wire connections make good contact.
- Perform the protective ground wire test according to TD00-000.860.01.
  The protective ground wire resistance must not exceed 0.2 ohms.
- Perform the IQ quick test of the system.
- Perform the country-specific acceptance tests (part acceptance).

This page is intentionally left blank.

Changes to previous version 4 - 1

Editorial revised

Descriptions for SIEMENS and other TFT displays deleted.

This page intentionally left blank.